

November 3, 1970

Dr. Clive Spicer  
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Dear Clive,

I wonder if you have any thoughts on the estimation of the cost of ill health and on the genetic component thereof that might be factored into a more rigorous discussion than you will see in the attached. I was recruited into this particular battle on rather short notice and suspect that some of our estimates may be off by a small factor, although I am not entirely sure in what direction. Probably the weakest point in my argument is neglecting the segregational part of the load which is to say that even the suppression of mutation or other adjustments of gene frequencies would not give a necessary improvement in average health. Furthermore, I would have to admit that there is something phony in characterizing every situation where the genotype is suboptimal with respect to vulnerability to environmental factors as being primarily a genetic problem.

On the other hand, I think most people have grossly underestimated the genetic factor in disease and it is presumably of some value simply to dramatize that.

The particular thing I wanted to ask you is whether you have had any empirical data that would bear on the variance of health and of health costs in the population.

It would, I guess, be too much to ask whether you could also assign a value to heritable component of that variance. But any leads that you can give us on this would be most helpful.

Besides the political utility of such information vis-a-vis support for genetic research, I think it may be quite indispensable for reaching objectively defensible conclusions about the cost of radiation exposure. \$100 per rad per capita strikes me as a fairly sober estimate, but I do not have to tell you that I have been attacked from all sides for suggesting it. I would just hope anybody could come up with a more carefully analyzed figure.

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Finally, I wonder if you can get me a copy or give me a clue to the source of the item that was mentioned in this rather ancient clipping from Newsweek.

It has been much too long since we have had a chance to see one another!

Sincerely yours,

Joshua Lederberg  
Professor of Genetics

Enclosure  
JL/rr